

## REMARKS

### Introduction

Claims 2-6, 9-12, 16-27, and 29-34 were pending in this application.

Claims 2-6, 9-12, 16-27, and 32-34 are rejected under 35 U.S.C. § 102(b) as being anticipated by Huscroft et al., U.S. Patent No. 5,512,860 (hereinafter "Huscroft").

Claims 29-31 are rejected under 35 U.S.C. § 103(a) as being obvious over Huscroft in view of Dalmia et al., U.S. Patent No. 6,211,741 (hereinafter "Dalmia").

Applicants have amended claim 20, 21, 26, and 29 to more particularly define the invention. Applicants have added new claims 35-40 and cancelled claim 30, without prejudice. No new matter has been added and the amendments and new claims are fully supported by the specification. Support for the amendments and new claims can be found, for example, in paragraphs [0031] - [0034] of the originally filed specification.

Reconsideration of this application in light of the amendments and the following remarks is hereby respectfully requested.

### Applicants' Reply

The Examiner rejected claims 2-6, 9-12, 16-27, and 32-34 under 35 U.S.C. § 102(b) as being anticipated by Huscroft. The Examiner rejected claims 29-31 under 35 U.S.C. § 103(a) as being obvious over Huscroft in view of Dalmia.

Applicants' independent claims 20 and 26 are directed toward an apparatus and method for receiving and processing a clock data recovery (CDR) signals. Amongst other features, applicants' independent claims include "a

dynamically adjustable parts per million (PPM) detector [that is] operative to output a signal when a frequency difference between the reference clock signal and the recovered clock signal is within a dynamically controllable frequency setting controlled by the PPM control signal." In other words, applicants' claimed approach for clock data recovery is designed to handle a wide range of incoming data rates and protocols. One technique that enables this approach to work is the ability to dynamically adjust the PPM detector based on the data conditions.

Huscroft refers to a clock recovery phase locked loop system in which a clock difference detector compares the frequencies of a reference clock signal and an output clock signal in order to prevent false locking. However, unlike applicants' claimed approach, this clock difference detector is not dynamically adjustable. In fact, Huscroft's entire system is only designed to handle predetermined clock rates and uses this predetermined clock rate within the clock difference detector to detect frequency variations of a predetermined magnitude, i.e., 122 ppm.

Accordingly, because Huscroft fails to show a dynamically adjustable PPM detector as specified by applicants' amended independent claims 20 and 26, applicants respectfully request that the rejection of claims 20 and 26 under 35 U.S.C. § 102(b) be withdrawn. Claims 2-6, 9-12, 16-19 21-25, 27, 29, and 31-34 depend from independent claims 20 and 26, respectively. For at least this reason, applicants respectfully request that the rejection of these claims be withdrawn.

#### New Claims 35-40

New dependent claims 35-40 further specify that the dynamically controllable frequency of applicants' independent claims 20 and 26 is adjusted in response to: detecting a change in a data rate of the CDR signal (claims 35 and 38), detecting a change in a protocol of the CDR signal (claims 36 and 39), or in order to optimize the performance of the data recovery (claims 37 and 40). Claims 35-40 are allowable at least because they depend from at independent claims 20 and 26, respectively. Claims 35-40 are also allowable for at least the additional reason that Huscroft does not show or suggest the features of these claims.

#### Conclusion

For at least the foregoing reasons, applicants respectfully submit that claims 2-6, 9-12, 16-27, 29, and 31-41 are patentable. This application is therefore in condition for allowance.

Accordingly, prompt reconsideration and allowance of this application are respectfully requested.

Respectfully submitted,

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